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Current Directions in Military Health-care Provider Resilience

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Abstract After more than a decade of war, the US military continues to place significant emphasis on psychological health and resilience. While research and programs that focus on the broader military community's resilience continue to emerge, less is known about and until recently little focus has been placed on military medical provider resilience. In this article, we review the literature on military medical provider resilience, provide an overview of the programmatic and technological advances designed to sustain and develop military medical provider resilience, and finally offer recommendations for future research.

Keywords Military · Resilience · Mental health · Provider · Compassion fatigue · Burnout · PTSD · Depression · Development · Training

Introduction

As of this writing, the USA is approaching its 14th consecutive year at war. To date, nearly 2.6 million service members have deployed to combat since 9/11 (A. Smith, personal

communication, August 25, 2014), and the signature wounds of the Global War on Terror are arguably psychopathology associated with combat exposure, namely post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). There continues to be great focus on improving behavioral health care and prevention practices and advancing research in this area. Indeed, a search of Google Scholar with the terms military+mental+health returns over 1.4 million results, with approximately 30 % of those produced since 2002 alone. While much has been done to establish primary, secondary, and tertiary preventive mental health programs, most of these programs focus on the broader population of service members, their families, and civilian employees of the Department of Defense who work outside of the health-care system.

Until recently, research, policy, and programs focused little attention on the unique preventive mental health needs of the tens of thousands of medical providers charged with the health care of the military community. The U.S. Army alone has over 5000 mental health providers (E. Brusher, personal communication, August 26, 2014), only one component of the broad spectrum of care provided to members of the military. Not only are providers charged with the health care of the military community, but they also deploy right alongside the infantrymen, pilots, mechanics, and logisticians, thus increasing the risk of provider exposure to combat trauma. Providers share the burden of processing their combat experience while treating those who suffer from perhaps identical symptomology. Repeated combat exposure coupled with the treatment of those suffering from both physical and psychological wounds is a recipe for a host of problems for health-care providers, including compassion fatigue, burnout, secondary traumatic stress, and vicarious trauma as resilience wanes over time.

The purpose of this review is to explore current research and emergent programs designed to bolster provider resilience within the military health system. Our intent is to focus on the most recent developments in the last 3–5 years, and we begin

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our review with a brief overview of indicators erosive to resilience. Later, we discuss factors associated with resilience sustainment and programmatic approaches towards resilience development. We conclude this report with a call for research and some key points for consideration.

Challenges Military Health-care Providers Face

Compassion fatigue and burnout are often descriptive terms attributed to providers lacking resilience—those who are unable to “bounce back” following exposure to primary or secondary trauma. Here, we echo the literature and define compassion fatigue as providers’ “reduced empathic capacity or client interest manifested through behavioral and emotional reactions from exposure to traumatizing experiences of others” [1•]. Providers may experience decreased concentration, anxiety, changes in sleep and appetite, distrust in others, and low motivation [2].¹ Burnout is not unique to health-care providers and is common among professionals in a variety of sectors doing stressful work, yet in providers, it often occurs alongside compassion fatigue. Typically, three symptoms emerge in burnout cases: overall mental and physical exhaustion, negative attitude and/or disappointment directed towards the self, and distrust towards clients and coworkers [3•].

Related to both compassion fatigue and burnout, literature is emerging on secondary traumatic stress (STS) and vicarious trauma (VT). Both are long-term effects most commonly associated with health providers who work closely with trauma patients. Providers suffering from STS will display many of the same symptoms as PTSD, while providers experiencing VT show changes in their outlook on the world, resulting in changes to methods they use in their practice and their general interaction with the people in their lives [4].

Current Research on Military Health Providers

Over the last 3–5 years, a wide variety of studies have examined provider resilience in a military setting. Several studies compare the level of resiliency among service members who work in health care versus those who work in other occupational fields [5–8]. For example, Jacobson et al. [9] investigated the onset of PTSD and depression in over 65,000 combat veterans and, the most germane here, 9371 health-care providers who were combat veterans. The results from this study found comparable PTSD and depression symptom prevalence among service members and providers, suggesting that combat exposure and not factors associated with service as a

health-care provider contributed to the symptomology. Similar to service members, provider risk factors related to the emergence of PTSD and depression symptomology included exposure to direct combat, being deployed for longer than 9 months, or being deployed more than twice [9].

Hickling et al. [10] compared service members who worked in health care with service members in other occupations and bifurcated their analyses between officers (e.g., health-care providers [doctors and nurses] vs. line [infantry and artillery officers]) and enlisted service members (e.g., health-care specialists [combat medics and lab techs] vs. line [truck drivers and tank crew members]). In contrast to Jacobson et al. [9], they found that service members not working in health care were more likely to report poor coping strategies such as harmful drinking habits than were providers. Yet, among officers, health-care providers more frequently reported signs of depression, distress, impaired functioning, and work- and family-related stress, than did line officers. Among enlisted, health-care specialists fared better; line enlisted were more likely to report signs of suicidal ideation, impaired functioning, and work- and family-related stress than were enlisted health-care specialists. Overall, officers and enlisted working in health care were more likely to seek professional help when needed while line officers and enlisted were more likely to believe that receiving counseling was damaging to their career. When taken together, both studies paint a picture of health-care providers as being no more resilient than others in the military, and in some cases, providers appear to fare worse. Yet, though these studies are somewhat illuminating, resilience research on the broader military health-care community is lacking and hardly conclusive.

Current Research on Military Mental Health Providers

Research on the military mental health provider community is more plentiful though still somewhat limited. For example, Cieslak et al. [1•] examined the prevalence of STS among military mental health providers, commonly referred to as MMHPs, and civilian mental health-care providers, both working with traumatized service members, and found that approximately 1 in 5 MMHPs met all four criteria for a diagnosis of STS. The results showed that likely contributors to STS included providers being directly exposed to trauma, caseload (number of patients and an overall high percentage of traumatized patients), and administrative work associated with MMHP service (paperwork). Similar results have been found in other studies that examined a broad range of military and civilian health-care providers [10–13•]. On the burnout front, Ballenger-Browning and coauthors conducted a survey study of 97 MMHPs and found that the greatest predictors of burnout included the number of work hours and caseload,

¹ See Owen, Wanzer [2] for an in-depth review of literature that attempts to create a single definition for the term compassion fatigue.

working with a higher number of personality disorder cases, serving as a psychiatrist, and being a woman. Protective factors included having confidants at work, having more clinical experience, working with a higher number of TBI cases, and serving as a psychologist.

Though mental health providers have supported the military since World War I, only recently has policy and force structure supported the notion of “forward psychiatry” where MMHPs were deployed closer to the combat environment to better address the pressing psychological health needs of those serving in active combat roles [14••]. The obvious by-product of this policy and force structure is that MMHPs are now at greater risk for exposure to primary and secondary trauma. Though empirical literature in this area is lacking, Applewhite and Arincorayan [15] highlight the challenges that many MMHPs face when deployed with military units and give examples of how these challenges can be addressed, such as institutional intervention focused on reducing workload and providing additional resources and support. Yet, the authors maintain that MMHPs do bear some personal responsibility in maintaining their mental health and the authors suggest that providers foster positive social relationships, develop a sense of spirituality, and maintain good physical health. These sentiments are also echoed in other pieces of research [7, 14••, 16•]. A recent longitudinal qualitative study assessed British MMHPs during and after a combat deployment, and the authors found that protective factors against burnout included healthy eating habits, a physical fitness regimen, and getting consistent sleep. An interesting institutional contributing factor towards burnout emerged: leadership. Indeed, lower ranked participants viewed higher leadership’s metting in health-care decision-making as a major contributor to the MMHPs’ burnout [13•].

Provider Resilience Sustainment

As shown in Table 1, there is a host of factors influencing MMHP resilience vis-à-vis burnout, compassion fatigue, STS, and VT. Some factors likely would benefit from intervention, especially at the individual provider, social, and organizational levels [4, 16•]. Of note, Linnerooth and coauthors [16•] recommend that providers help their family members understand expectations during deployment in an attempt to ameliorate external stress being added to the combat deployment experience. External stress is often overlooked, but, indeed, prior research by the Mental Health Advisory Teams [17] suggests that some of the biggest stressors on deployed service members originate from the home front, and we would expect providers to respond similarly. Post-deployment resilience sustainment also seems to be influenced by the providers’ pre-deployment routines. For example, in Miller’s and Warner’s [14••] qualitative study of the reintegration

strategies of 27 MMHPs and 22 respondents indicated some difficulty with post-deployment reintegration. Yet, those with strong social physical routines—for example, those who regularly attended a church or those who maintained a fitness regimen—tended to fare better. Additionally, those providers who maintained social and professional contacts with those who were still deployed and reconnected with them upon their redeployment also fared better. Both suggest that social connectivity is a critical component of sustaining resilience within the provider community.

Programmatic Efforts to Enhance Provider Resilience

As the research shows, the health providers serving in the military are susceptible to secondary trauma and compassion fatigue. Though all military branches recognize the need for a programmatic approach towards resilience development among providers, the U.S. Army appears to have made the greatest strides towards doing so. Over the past 10 years, several Surgeons General have set requirements for the Army and its medical command personnel to participate in assessments of and trainings about coping with burnout, compassion fatigue, and secondary trauma [18, 19]. In addition, the Army has taken several steps to offer support to those providers experiencing these difficulties. For example, Provider Resilience Training (PRT) conducted by the Army Medical Department Center and School began as a compassion fatigue identification and training program designed to support providers in the face of fatigue and burnout [19]. The program, eventually renamed the Care Provider Support Program or CPSP, utilized the EAT Model, resulting in three key developmental strategies: educate yourself, assess your level of fatigue, and take action to build resiliency [18]. The intent was to teach providers about compassion fatigue and burnout, self-assess their health, and take positive steps towards well-being that included the development of self-care plans, counseling, and strengthening the social network with others who share the burdens of service as a health-care provider. Trainers were placed in the various medical treatment facilities (MTFs) to conduct training and assist providers in achieving self-care goals in order to augment resiliency levels and provider well-being.

The program also included three levels of training at the MTF level: (1) phase I included educating providers on the costs of caregiving by watching an online video and completing an online 30-item self-assessment (Professional Quality of Life Scale or ProQOL) (30 min); (2) phase II training included a 2-h block of instruction by the MTF PRT trainer to increase provider awareness and assist in the creation of a self-care plan (2 h); and (3) annual birth month training for reassessment of compassion fatigue and burnout levels and to update individual self-care plans (1 h). Additionally, training was developed and

Table 1 Suggested factors contributing to burnout among health-care providers and coping strategies to reduce the chances of burnout

Citation	Factors	Coping strategies
Voss Horrell et al. [4]	Patient level	Organizational level
	Employment status	Divide responsibility for trauma patients
	Session attendance	Allow clinicians' autonomy
	Symptom improvement	Provide resources, support staff, and training
	Aggressive presentation	Encourage discussion among team members
	Level of social support	Offer peer support groups for staff
	Likelihood of redeployment	Encourage diversity in staff responsibilities
	TBI and other diagnostic comorbidities	Reward staff for successes
	Acute- vs. chronic-onset PTSD	Encourage intake interviews
	Clinician level	Clinician level
	Theoretical orientation	Engage in activities outside of work
	Military affiliation	Balance caseload with variety of patients
	Personal trauma history	Create a support system outside of work
	Spiritual/religious views	Be aware of PTSD symptoms in self
	Total hours per week spent working with trauma patients	Seek help when needed
	Years of experience in trauma treatment	Nurture one's spiritual self
		Participate in professional development
		activities and continuing education
	Organizational level	Maintain good physical health
	Specialty clinic	
	Number of providers within the clinic	
Miller and Warner [14••]		Reestablish pre-deployment routine
		Attending regular organization groups
		Continue with regular exercise
		Stay connected to the deployment experience
		Follow the news on the area of deployment
		Contact colleagues that have returned
		Keep in contact with colleagues still deployed
Linnerooth et al. [16•]	Clinician level	Pre-deployment
	Higher levels of empathy towards patients	Prepare family
	Higher motivation and idealism	Understand roles
	Personal life stressors	Adapt to the environment
	Prolonged exposure to stressful work environment	Connect with other professionals
	Lack of social support	Maintain generalist approach
	Younger age	
		During Deployment
		Find strength in numbers and rank
		Maintain control as the SME
		Go "off the record" with other professionals
		Be proactive regarding professional ethic
		Contemplate personal feelings about death
		Post-deployment
		Manger pressure to underdiagnose or overdiagnose
		Educate non-psychology personnel about chronic conditions
		Practice self-care
Saban et al. [7]	Spending more than 50 % of time with TBI patients	Connect with others
		Promote a healthy lifestyle
		Pursue outside interests
		Manage work environment
		Maintain positive thinking

conducted by the Army Medical Department Center and School for fatigued providers. Providers, who self-selected into the 5-day course, were taught mind-body medicine techniques and specific resiliency skills such as problem-solving and maintaining healthy boundaries. This comprehensive training approach demonstrated the Army's concern about the deleterious effects of compassion fatigue and burnout on its medical providers.

In a move towards integration across the Army, the Army's Comprehensive Soldier and Family Fitness (CSF2) program recently subsumed the Care Provider Support Program and incorporated its components into CSF2's Master Resilience Trainer initiative (commonly referred to as MRT, see Reivich et al. [20] for a review) to expand services to providers who work with the traumatized. Here, extensive training and practical resilience skills are offered to active duty and civilian health-care providers detailed to military medical treatment facilities, commonly referred to as MTFs. In addition to the multiple avenues of intervention, including virtual learning modules and self-assessment tools, the training offered by MRTs specially trained in CPSP techniques focused on compassion fatigue and burnout is comprised of two sessions described below.

The first training session consists of a 2-h block developed by the staff at the Walter Reed Army Institute of Research in collaboration with the Army Medical Department Center and

School. This session addresses the special needs of Army health-care staff on burnout and compassion fatigue. Skills such as regulating levels of compassion, maintaining healthy boundaries, and investing in one's personal self-care activities are taught in an effort to enhance provider resilience. The self-care approach offered during this session is extensive, focusing on long-term skills such as goal setting, daily intervention in activities such as hobbies, engaging in self-care activities at work that can help one to recharge in 3- to 5-min increments, and how to handle "in the moment" stress when confronted in anxiety-provoking or high-pressure situations. A pilot assessment of this training session was conducted at a military facility in June, 2014, with 11 health-care staff members consisting of 3 active duty military participants (all males) and 8 civilian participants (all females). Though a small sample size, nearly 75 % indicated that patient care was their primary or sole role, and the mean number of years that participants worked in military health care was 10 years (with a range of 1 to 30). Overall, participants were very satisfied with the training and thought it useful and relevant. Comments included that the training was "excellent and necessary." They also felt confident in their ability to use newly learned skills. While additional research is needed, these preliminary findings are promising.

Fig. 1 National Center for Telehealth and Technology's Provider Resilience smartphone application



The second training component is a much more robust block of instruction that parallels the 80-h MRT course offered to members of the line Army, but here, special attention is paid to tailoring the training to the medical audience. For example, military health-care provider examples are offered that illustrate how increasing resilience skills can help mitigate the effects of compassion fatigue and burnout. This training is currently an additional mandate for active duty health-care providers assigned to MTFs.

Technology is also being leveraged for provider self-awareness and development of resilience. For example, *Provider Resilience* is a smartphone mobile application developed by the National Center for Telehealth and Technology and released in 2013 (Fig. 1). *Provider Resilience* is designed to support the emotional health and resilience of military health providers as they cope with compassion fatigue, secondary traumatic stress, and burnout [21, 22]. This free app—links for download can be found at <http://t2health.dcoe.mil/apps/provider-resilience>—is the first of its kind to be used within the military on a wide scale. It offers tips, trainings, videos, and self-assessments on rest and relaxation, burnout, and quality of life. It also encourages providers to take time for themselves, reminds them of the greater purpose of their work, and provides guidance on resilience-building and healthy coping behaviors. Users can track their self-assessment scores over time, noting areas of improvement and risk, and then seek more information or support in those areas of risk. Other websites, such as the Deployment Health Clinical Center (<http://www.pdhealth.mil>) and the Navy and Marine Corps Public Health Center's page on resilience (<http://www.med.navy.mil/sites/nmcphc/health-promotion/psychological-emotional-wellbeing/Pages/resilience.aspx>), are also available to military providers and offer a wide range of tools.

Future Research Needs and Conclusions

Though a significant amount of research on resilience and the military has been conducted over the last 3–5 years, we conclude that the literature shows a clear need for additional research on provider resilience, as only a few empirical studies have recently been published. Research could help strategic leaders in the military get a grasp on, for example, the impact of more than a decade of war on provider attrition as attributed to burnout and compassion fatigue. Given the unique characteristics of caring for combat veterans, the potential loss of those providers to the private sector or leaving the medical field altogether gives us pause. Additionally, while significant resources are being marshaled towards training resilience skills in a medical context, we do not understand the extent of benefit—if any—increased resources offer the provider; only research can provide these answers. Quite simply, we need to know more.

Furthermore, while we concur that resilience training might bolster provider resilience so that they can better address stress and perhaps prevent burnout and compassion fatigue, we offer that training alone is not an integrative solution because it ignores important organizational and contextual factors. For example, even if the resilience training is highly successful, meaning that skill retention and application is high, the training effect would likely be incidental if the organization fails to offer providers with the proper resources, a reasonable and balanced caseload, reasonable administritivia, and good leadership. Indeed, Adler and coauthors [23] provided initial empirical evidence of a link between military leader behaviors and subordinate psychological health, so perhaps such work could be expanded to the medical provider community. Research on the horizon must not only focus on the individual factors associated with provider resilience but also account for factors largely outside of the providers' control at the organizational and contextual levels.

Disclaimer The views expressed in this article are those of the authors and do not necessarily represent the official policy or position of the U.S. Army Medical Command, Office of the Deputy Under Secretary of the Army, the U.S. Army, or the Department of Defense.

Compliance with Ethics Guidelines

Conflict of Interest Paul B. Lester, Lauren C. Taylor, Stacy Ann Hawkins, and Lisa Landry all declare that they have no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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